

**DETAILED ACTION**

**Examiner Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeffrey M. Andersen on November 21, 2008.

**Claims**

Cancel claims 2 and 21-24.

Amendments to the Claims:

1. (Currently Amended) A circuit for performing n-bit cyclic redundancy check (CRC) calculations, comprising:

a plurality of CRC calculation blocks, each of the plurality of CRC calculation blocks performing a CRC calculation in parallel to yield a plurality of CRC calculation values of an n-bit CRC result;

a switch configured for selectively passing one CRC calculation value included in the plurality of CRC calculation values, the passed CRC calculation value being calculated by one of said plurality of CRC calculation blocks; and

a CRC register for latching the one of the CRC calculation values selectively passed by the switch, wherein the latched CRC calculation value is inverted.

14. (Currently Amended) A method for calculating a cyclic redundancy check (CRC) value with a variable width data input, comprising:

Inputting a variable width data word;

Calculating a first CRC value having a first number of bits using the variable width data word;

Calculating a second CRC value having a second number of bits using the variable width data word, wherein the first and second CRC value calculations occur in parallel; and

Selecting one of: the first and the second CRC value as the CRC output value

wherein the selection of one of: the first value and the second CRC value is accomplished by a switch selection signal, wherein the switch selection signal is a multi-bit value, wherein the multi-bit value is decoded to provide a four bit value to a mux that performs the selection of the one of the first and second CRC values, wherein a CRC output value is latched after being output by the mux and the latched CRC output value is feedback, wherein the CRC output value is inverted.

### **Response to Arguments**

Applicant's argument filed on 11/18/08 has been fully considered and they are found persuasive.

### **Reasons for allowance**

Claims **1, 3-17 and 19** are allowable over the prior art. The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art is exemplified by Cawley (U.S. Patent No. 5,361,334).

**As per claim 1:**

Cawley discloses packets which pass from router to router and how they can be corrupted. A check value or crc value is appended to the packet. The packet is checked and if the packet is found corrupted, then a receiving router would switch the packet into it's destined cpu, fpu or memory to check the crc and discard packets which have been corrupted. The router contains a register or group of registers from which it can calculate, or look up, the correct part for any given destination, and those registers must be set to different values for each router.

However, Cawley does not teach nor fairly suggest the foregoing limitations "a switch configured for selectively passing one CRC calculation value included in the plurality of CRC calculation values, the passed CRC calculation value being calculated by one of said plurality of CRC calculation blocks; and a CRC register for latching the one of the CRC calculation values selectively passed by the switch, wherein the latched CRC calculation value is inverted.

Dependent claims 3-13 depend from allowable independent claim and inherently include limitations therein and therefore are allowed as well.

Independent claim 14 includes similar limitations of independent claim 1 and therefore is allowed for similar reasons.

Dependent claims 15-17 and 19 depend from allowable independent claim and inherently include limitations therein and therefore are allowed as well.

#### **Conclusion**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enam Ahmed whose telephone number is 571-270-1729. The examiner can normally be reached on Mon-Fri from 8:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached on 571-272-6962.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA

12/4/08

/Esaw T Abraham/

Primary Examiner, Art Unit 2112

